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Correspondence

Declass Review by NGA.

NPIC/IPD-33/67
1 February 1967

MEMORANDUM FOR: Assistant for Technical Development, NPIC

ATTENTION:

SUBJECT: On-line Measuring System

REFERENCE: NPIC/TDS/D/630-67

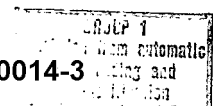
1. I regret that we have not gotten our comments on reference to you by the requested date of 27 January. Review of the Development Objectives for a Digital Control Console has been more complicated than we anticipated. We have not yet finished our review, but will explain the factors which we believe remain to be resolved.

2. The Development Objectives are apparently based on the original specifications for the units installed with the on-line measuring equipment. The original specifications for this equipment envisaged the use of modems in the circuit at both ends. We have found by experience that we can eliminate the modem thus saving in the neighborhood of per circuit for equipment as well as eliminating maintenance costs.

3. The interface specifications for the original units were apparently derived from Electronic Industry Associates Specification RS232-B which is designed to guarantee accurate and reliable transmission of signals over distances of up to 50 feet. Since far greater distances are involved in the circuits within we believe that it is desirable to review the specification to insure that we minimize any possibilities of transmission loss or garbles. Additionally, since the computer system is being expanded to provide the capability for distribution of substantive intelligence at remote sites, we need to investigate the possible radiation problems and determine whether or not we must comply with Federal Specification 2722.

4. UNIVAC advises that NSA has investigated these problems thoroughly in connection with the remote equipment they have installed on their 490 equipment. They further advise that the NSA equipment complies with neither EIA RS232-B, nor MILSPEC 188-B. We are consequently making arrangements to contact the NSA engineers responsible for their on-line equipment and obtain their specifications as well as exchange views on any problems which may be encountered. We expect to have the necessary information in hand by 7 February.

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5. Aside from specifications, the Development Objectives lack any performance and acceptance criteria. A test plan should certainly be developed and made a part of any contract to procure additional equipment. The test specifications should be included with the Development Objectives.

6. According to the development objectives the console is intended to provide an inexpensive, easy to use measuring capability for the PI. If this is so, a number of the functions can probably be omitted. For example: what is the need for the ten 12-position dial switches for identifying points. Are the nixie tube displays really used? Are the thumb wheel preset switches needed?

X1 7. Under the Phase II Contract for the Integrated System Design, ☐ is required to prepare design specifications for remote access equipment included within their concept. Their concept includes an inexpensive digitized-light table for use by the PI's. Do these Development Objectives overlap the specifications which ☐ is required to prepare? If so, I recommend we obtain their concurrence in the specifications and delete the requirement for this work from their contract. Close coordination with ☐ is essential to insure that all the functions necessary for the given operation and only those functions are included in the equipment. It would seem more logical to design equipment to perform specific functions at a given point in the PI exploitation process, rather than proceed with the development of an individual piece of equipment which may or may not fit in the total process.

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Chief, Information Processing Division

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TO Asst for TD, NPIC FROM IPD SUBJ. On-Line Measuring System			<table border="1"> <tr> <th>ROUTING</th> <th>DATE SENT</th> </tr> <tr> <td>1 DA/TD</td> <td>28 Feb</td> </tr> <tr> <td>3 BN</td> <td>28 Feb</td> </tr> <tr> <td>4 C/DS</td> <td>28 Feb</td> </tr> <tr> <td>2 D/TD</td> <td>6 Feb</td> </tr> <tr> <td>P</td> <td>9 Feb</td> </tr> <tr> <td></td> <td>28 Feb</td> </tr> <tr> <td colspan="2">File 02051</td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> </table>		ROUTING	DATE SENT	1 DA/TD	28 Feb	3 BN	28 Feb	4 C/DS	28 Feb	2 D/TD	6 Feb	P	9 Feb		28 Feb	File 02051							
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CIA/IAD			<p>ATTN: [Redacted]</p> <p>GTC [Signature]</p> <p>Things very interesting as it indicates that [Redacted] is drawing up specs for PI equipment - This needs consideration</p> <p>[Signature]</p>
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